

REMARKS

Claims 1-15 and 17-33 remain pending in the present Application. Claims 1-13 and 27-31 were previously withdrawn from consideration

Claims 14 and 19 have been amended, leaving claims 14, 15, 17-26, 32, and 33 for consideration in the present amendment. Claims 14 and 19 have been amended to provide greater clarity to the claim language. Support can be found at least in FIG. 8 and the related disclosure in the specification. It is believed that the amendments made herein may be properly entered at this time, i.e., after final rejection, because the amendments do not require a new search or raise new issues and reduce issues for appeal. Moreover, by amending the claims to particularly define the location of volatilization, it is believed the amendment places the claims in condition for allowance. No new matter has been introduced by these amendments.

Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Rejection Under 35 USC 112

Claim 26 stands rejected under 35 USC 112, second paragraph, as being indefinite.

The amendment to claim 26 renders the rejection moot. Accordingly, the rejection should be withdrawn.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 14, 15, 17-20, 22-26, 32 and 33 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Raoux (US Pat. No. 7,004,107). Applicants respectfully traverse this rejection.

“[A] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)

(emphasis added). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements “*arranged as in the claim.*” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984) (Emphasis added).

In the Advisory Action dated February 24, 2010, the examiner comments that “the energy source of Raoux is separate, electronically coupled to and downstream from the processing chamber, even if the volatilization is not” (see Advisory Action, page 2). While Applicants continue to disagree with the examiner regarding the location of Raoux’s energy source, Applicants, in order to expedite prosecution, have now amended the independent claims to clearly indicate the location of volatilization, i.e., “downstream from the process chamber within the flow path” as in independent claim 14 or “downstream from the process chamber within the effluent carrying conduit” as in independent claim 19. As acknowledged by the examiner in the Advisory Action, the location of volatilization in Raoux is not downstream from the processing chamber. Rather, any volatilization necessarily occurs within the process chamber. Accordingly, each feature as claimed by Applicants is not taught and the anticipation rejection is improper.

According, Applicants respectfully request the rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 21 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Raoux. Applicants respectfully traverse this rejection.

Claim 21 depends from claim 19 and as such, includes all of the features found in the base claim. As discussed above, Raoux fails to teach or even suggest a plasma based semiconductor material removal system comprising, *inter alia*, a volatilizing electromagnetic energy source coupled to an effluent carrying conduit downstream from a plasma processing chamber, wherein the volatilizing electromagnetic energy source is configured to cause excitation of a gas having reactive species therein, wherein the excited gas may include a solid material a gaseous byproduct, and combinations thereof removed from a semiconductor work-piece, and wherein the excitation is

effective to volatilize the solid material downstream from the process chamber within the effluent carrying conduit when present. In Raoux, the RF source 5 is coupled to a manifold and the pedestal within the reaction chamber 30 of the PECVD apparatus. As such, any volatilization necessarily occurs within the process chamber and not downstream. Modifying Raoux so that volatilization occurs downstream would change the principle of operation and defeat the intended purpose of Raoux to function as a chemical vapor deposition apparatus. In this regard, the courts have held that “[i]f the proposed modification would render the prior art invention being modified unsatisfactorily for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon* 733 F. 2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The courts have also held that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.” *In re Ratti* 270 F. 2d 810, 123 USPQ 349 (CCPA 1959). This is markedly different from Applicants claimed apparatus.

In view of the forgoing, the rejection is requested to be withdrawn.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

The Examiner is invited to contact Applicant’s attorneys at the below listed telephone number regarding this Amendment or otherwise regarding the present application.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,
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